the fact that *Leucodon sciuroides* is probably more common in New England than had been supposed and it has been recently found in Maine, New Hampshire and Vermont, though not before, so far as I know, from Massachusetts. *Racomitrium aciculare*, *Pogonatum alpinum* and *urnigerum* and some of the others are not of common occurrence in the state. *Scapania undulata* presented a purplish form possibly corresponding with var. *purpurea*, Nees. The list is by no means an exhaustive one but shows something of the possibilities of more careful observation and study in a locality which has been somewhat neglected.

MT. PLEASANT, PENNSYLVANIA.

SOME PLANTS FROM PRINCE EDWARD ISLAND.

J. R. CHURCHILL.

IT would be hard to tell why Prince Edward Island was finally selected for our midsummer migration in 1901. The attractions were not exclusively botanical. Indeed I had been warned that the whole island was cleared and under cultivation, apparently to such an extent that there was no room there for wild flowers; and it was quite plain that my hungry botany-box must be filled with those plants only which, whether wanted or not, follow mankind and intrude upon his fields and gardens. I became quite convinced that my botanical fare would be limited to weeds and to the bold denizens of hedgerows, cultivated ground, roadsides and waste places. But there were alluring reports of a cool dry and bracing climate, of a most comfortable boarding-house at Tracadie Beach on the North shore, of freedom from fogs, and of the salt sea pleasantly warmed for comfortable bathing upon the sandy shoals in the bright sun.

Now even a botanist loves to bathe, provided the water is not too frigid; and he is not superior to the seductions of a good table and house; and I reasoned that even weeds, if new and fresh, are attractive and interesting, and moreover are essential to the complete furnishing of every well-regulated herbarium.

And so it came about that, on the evening of July 19, I landed at Summerside, and put up for two days at the Clifton Hotel, the best of the three modest inns of the quaint little village.

Prince Edward Island is 130 miles long; and the extreme breadth is 34 miles. It contains over 2100 square miles, and it lies between the 46th and 47th degrees of North latitude; which is about the same as Aroostook County in Maine. In altitude the island nowhere exceeds 500 feet, its bare rolling surface reminding one strongly of our Nantucket Island; although the great fields are more fertile and cultivated. Strikingly alike also are the two ancient seaports, Summerside and Nantucket-town, with their primitive weather-beaten buildings and quiet country streets.

It was quite in keeping with the predictions that among the first plants to attract attention were two weeds which grew along the plank sidewalks of these well kept streets. Our common Tall Buttercup (*Ranunculus acris*, L.) presented here invariably so peculiar an appearance, that I was quite at a loss to name it, until the recent note of Mr. Fernald (RHODORA, I, 227. Dec. 1899) came to mind; and it was then plain that this weed was *R. acris*, var. *Steveni*, Lange, and that I was now in the latitude where this broad-leaved form should prevail, as stated in Mr. Fernald's account.

The second gutter-plant was the Garden Cress or Peppergrass of Europe (*Lepidium sativum*, L.). It is much taller and more slender than our three common Lepidiums, and the pod is larger. Here, as in England, it is merely a garden escape and not indigenous.

At the eastern end of the village there was a considerable colony of *Cotula coronopifolia*, L. This pretty plant is botanically a near relative of our common Tansy, and the golden-yellow rayless flowers of both are so much alike that, if it were frequent enough to have a common name, it would or might popularly and appropriately be called the Dwarf Tansy. It was growing in deep soft mud by the edge of the marsh, and though low, its bright golden Tansy-like flowers made the plant quite conspicuous. Its history is interesting. South Africa is its home, but like Lord Bateman, it seems "determined to go abroad;— to go strange countries for to see." It was collected on salt marshes in Chelsea, Massachusetts, by Herbert A. Young in 1879, and by C. E. Perkins in 1880; and these specimens are in the Gray herbarium. Yet it was not considered entitled to mention in the Manual; nor is it recorded in Britton and Brown's Flora. Before 1884 it had reached California, and in the Synoptical Flora of North America (vol i. pt. 2, p. 366) it is said to be "thoroughly established on the [Pacific] coast — and on some watercourses in the interior: a rare ballast weed on the Atlantic coast."

In Part II of the Catalogue of Canadian Plants, by John Macoun (also published in 1884), on page 285, under "Un-named Species of Compositae," is the following note:—"(No. 1331.) In August, 1883, Mr. James Fletcher picked up in the neighborhood of Victoria, a small rayless composite, which at first sight might be referred to *Matricaria discoidea*, but which differs very materially from that species in many respects. It is evidently a denizen of ditches and muddy places, but the specimens are too few and incomplete for identification. Lower leaves laciniate, upper ones much less so. The whole plant quite smooth and branching at almost every leaf which sheaths both stem and branch." Afterward in 1886 (Part III, p. 552), *Cotula coronopifolia* is recorded as "abundant for some distance along a gutter in Fort Street, Victoria, Vancouver Island, 1885 (Fletcher). This is the plant described but not named under No. 1331."

These are the only records of its occurrence that I have been able to find; and it seems remarkable that a weed like this, with both disposition and ability to travel such great distances, should not establish itself more firmly and abundantly in its new homes.

The rest of my time on the island was spent at the Acadia hotel, Tracadie Beach, on the Gulf of Saint Lawrence, about fifteen miles across the island from Charlottetown the metropolis, and more than fifty miles from Summerside. The journey back and forth between these places, by the little narrow-guage railroad, gave a good opportunity to verify the bucolic account of this prosperous land, of which it has been said "It is one rich rolling arable farm, from Cape East clear up to Cape North,—a warm and sandy land, in a genial climate, without fogs." Except at Summerside, and a day's trip made to Charlottetown, all my collecting was done within five miles of Tracadie Beach.

Between the hotel at the edge of the sand-dunes, and the sea, stretched a low level strand thinly carpeted with *Festuca ovina; Agrostis alba; Poa glumaris* (?); *Carex silicea; Scirpus pungens; Juncus Balticus* (a slender and peculiar form); *Salsola Kali; Polygonum Raii; Limosella aquatica*, var. *tenuifolia; Suaeda* sp.?; *Glaux maritima; Potentilla Anserina; Spergularia borealis; Ranunculus Cymbalaria*, and other maritime plants. A step hence to the sand-dunes disclosed another series of plants. There was the familiar and characteristic Sea Sand Reed (*Ammophila*); and three woody plants of very similar habit trailed in graceful prostrate sprays over the shifting sands. These were two Junipers; *J. communis*, var. *Canadensis*, and *J. Sabina* var. *procumbens*, and the Crowberry (*Empetrum*). With them in the dry sand were *Hudsonia tomentosa; Rosa lucida*, var.; *Vaccinium Vitis-Idaea; Arctostaphylos*, and *Smilacina stellata*, — names, many of them, more suggestive of the mountains than of the seashore.

Senecio sylvaticus was common, especially along the shores. Its handsome relative, the Tansy Ragwort, or "Stinking Willie" as it is called in Scotland (*Senecio Jacobaea*, L.), is now vigorously asserting itself here and traveling rapidly and extensively southward through the Maritime Provinces. Yet in the Synoptical Flora, in 1884, it is dismissed in a single line, as "with some other species, occasionally occurring as ballast waifs." I had seen and collected the bright golden flowers about the railroad stations as I came through New Brunswick, but I learned later that, like many a fine looking fellow, his reputation is very bad. The charges against the plant as stated by Mr. Lawrence W. Watson, a botanist of Charlottetown, in an article contributed by him to a local publication, and entitled "Wolves in Sheep's Clothing," are briefly that, as a pernicious and aggressive weed, it is an enemy to the farmer; second, that it is largely responsible for asthma and hay fever; and finally that it was the cause of a fatal epidemic which recently prevailed extensively among the cattle of Pictou County, Nova Scotia. With reference to the last charge there was, I think, an official investigation, but the evidence of guilt was not clear. So I was pleased, considering its good looks and our short acquaintance, to discredit these reports, and aquit it of all but the ordinary vices of a vagrant weed.

Two other introduced plants quite new to me, both also with weedy tendencies, were frequent about Tracadie. One, *Mentha rubra*, Hudson, is very similar to our only native Mint, *M. Canadensis*, L.; but the flowers are larger and reddish-pink, and there are other distinctions in the character of the pubescence and the leaves. The plant is handsome and readily distinguished in the field. The other plant, *Gnaphalium sylvaticum*, one of the Everlastings, grew about the edges of cultivated fields and roadsides. This weed seems not only to thrive under cultivation, but to improve, in appearance at least, under the severe and often destructive processes of the botanist. Like all the Everlastings, it adapts itself readily to pressing, drying, poisoning and mounting; and makes perfect and enduring specimens. As it was only recently discovered this side of the border, in Maine, it has not been admitted to the Manual.

Perhaps I ought to express the hope that my readers will not assume, in view of the excessive attention thus far lavished here upon the mere weeds, that the Island was altogether "an unweeded garden, that grows to seed." There was many a little untamed bog, or copse, or shore, which well repaid search for the plants which belong there; the shy natives in their own proper homes; and my collections included many such species. Brief mention of two only of these, which had also the charm of novelty, must suffice.

The Dwarf Mistletoe (*Arceuthobium pusillum*) has become well known only within comparatively few years, and though it is probably widely distributed, yet it is still sufficiently rare or local to compel attention to each newly discovered station. So I was pleased and perhaps pleasantly excited when I discovered the tiny parasite growing in abundance on the Black Spruce, in a sphagnum bog just behind the broad sandy beach at Tracadie. Its history, appearance, habits and distribution were so fully discussed in this Journal (Vol. II, pp. 1 to 11, and p. 221,) that but little beyond this record of its occurrence here need be given. It should be said however that, while the White Spruce and the Larch were both abundant in the neighborhood, yet I did not find the Mistletoe upon them. I was also impressed with the almost constant association, upon the same tree, of the Mistletoe with *Peridermium abietinum*, the fungus referred to by Prof. Arthur (RHODORA, II, 223); and the yellow sprays of the spruce, with leaves infested and discolored by the fungus, were the surest guides to the colonies of the flowering parasite upon the branches. I find no definite record of the occurrence anywhere in Canada of the Dwarf Mistletoe.

The second native and notable plant was a *Tillaea*, which I found in the wet sandy margin of Campbell's Pond, which is separated from the ocean by the same broad beach at Tracadie. Though the station was far north of its known range, it was of course assumed to be *Tillaea simplex*, and it was only after careful examination since my return, that Mr. Fernald identified it with *T. Vaillantii*, Willd., of Africa and Central Europe. The little plant, less than an inch high, grows in moss-like tufts like its congener *T. aquatica*, L. (*T. simplex*, Nutt.), from which it differs principally in the elongated pedicels of some of the flowers. This species has not been reported from North America; but the "*Tillaea simplex*" mentioned in Mr. J. M. Macoun's Contributions to Canadian Botany[1] as "new to Canada," and collected also on Prince Edward Island, may be *T. Vaillantii.*

August sixth, the last day of my stay, I was joined by Mr. Watson from Charlottetown; and we rambled and collected together, enjoying the companionship and alike intent upon a wholesome and congenial pursuit. Thus pleasantly ended last summer's pleasant sojourn in a pleasant country! The warnings that were given to deter us were indeed verified, that the island was a garden; but it was also demonstrated that this garden contains many beds of flowers and many species which the gardener does not know are there, and which may well attract other botanists, as they did me, to the delightful summer observation and collection of them, and the critical and reminiscent winter study that follows of their forms and habits, their places, and their names.

NOTES ON THE FLORA OF CONNECTICUT.

A. W. DRIGGS.

In looking over the pages of Mr. Bishop's recent list of Connecticut plants, I find several I have reported in years past that need correction, and some additions that may be worthy of note at this time.

Botrychium lanceolatum, Angstroem (West Hartford) proves to be *B. matricariaefolium*, Braun, as noted in RHODORA, iii. 36.

Onoclea sensibilis, L., forma *obtusilobata* is noticeable to a considerable extent throughout the northern part of the state. It seems to be frequent in pastures, along roadsides where cattle have occasionally grazed, and I have found it about railroad embankments where bushes have been cut.

Woodwardia angustifolia, Smith, reported from East Hartford in the list of 1895, was stricken out in the Additions and Corrections as I was unable to verify the report. It has since been discovered in low woods in the central part of the town. This station is some fifty miles inland. *Lygodium palmatum*, Swtz. also finds its home here.

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[1] No. V, p. 11. Reprinted from the Canadian Record of Science; Jan., 1895.

Juniperus Sabina, var. *procumbens*, Pursh. (Hartford, Manchester). Originally planted, now evidently growing without cultivation. The same may be said of *Thuya occidentalis*, L. (East Hartford). Aside from the fact that they grow without cultivation they can hardly be considered a part of our general flora.

Zizia aurea, Koch. var. *obtusifolia*, Bissell, RHODORA, ii. 225, has been collected in quantity from Canaan and So. Windsor.

Lactuca hirsuta, Muhl. Canton, August 14, 1901, along the main road, northern border of Mt. Horr. The species seems to be rare or at least only occasional. This, a single specimen, is the only one I have seen from the central part of the state during the past five years.

Prenanthes trifoliolata, Fernald, is being recognized more or less throughout the state. Along the main road from Granby to Simsbury it is noticeable.

Cassia Chamaecrista, L. Frequent and often common in towns along the coast, it is noticeably less frequent in the interior of the state. In the Connecticut valley it is well established and plentiful as far northward as Middletown, rather sparingly in Cromwell, Rocky Hill, and South Glastonbury. At Hartford I have seen one colony of few plants.

Desmodium Canadense, DC., throughout the central and northern portions of the state is an abundant and prolific wayside plant. I have seen it by the wayside in woods, but very sparingly, rather appearing as though it were not in its right habitat. In Connecticut it certainly has its most striking and handsome growth in strictly open places, preferring dry soil and the *wayside.* I always associate *D. Canadense* with such environment.

Desmodium canescens, DC., is more frequent than *D. cuspidatum*, T. & G., growing in abundance about the tobacco fields throughout the Connecticut valley and adjacent hill towns.

Carex intumescens, Rudge, although listed from but two stations is well distributed in the Connecticut valley.

Carex Muhlenbergii, var. *enervis*, Boott. Stamford, July 24, 1901. Not before reported from the State. Is plentiful along a path leading to the point of land south of the electric light station. Southern New York has been the northern limit according to Britton and Brown.

Carex mirabilis, Dewey. Reported from Meriden and Bridgeport. Large quantities were found on the Talcott Mt. Range, town of West Hartford, July 24, 1901.

Solidago Elliottii, T. & G. (Glastonbury). There is little doubt that this was a wrong identification. I recorded this species in my note book of 1894, but successive yearly journeys over the same ground (peat bogs along Salmon Brook) failed to yield further plants. I have persisted in my search, however, and was rewarded this year with *S. uliginosa*, Nutt., which has not been recorded before from this part of the state.

Pyrus arbutifolia, var. *melanocarpa*, Hook., is found in most of our swamp margins and low woods. That this is a plant not requiring moisture or soil such as is usually associated with it, may be seen from the following:— On the summit of Mt. Riga, Salisbury, growing on thin soil without much apparent moisture, plants were found on August 28, 1901, thriving and fruiting in abundance. They were unusually small, often not over three inches high, but bushy and stout of growth. The fruit did not show that it lacked the nourishment of a meadow soil or loam, being of good size and looking large on such small plants. Mt. Riga is over two thousand feet above sea level, has an exposed summit, portions of which are covered with grasses, also *Potentilla tridentata* and *Quercus ilicifolia*, the latter forming a sort of ring around the flat rocks of the summit, but not tall or plentiful enough to offer shelter to other plant life from the extremes of temperature. The day I was there the soil was almost caked, owing to the radiating heat from the rocks.

Panicum longifolium, Torr. Canton, August 14, 1901, vicinity of Mt. Horr. Previously reported in Rhodora iii. 102, from Rhode Island and in i. 67, from Connecticut. The Canton station extends its range well to the north so that the plant may be expected in almost any part of the state.

Panicum unciphyllum, Trin. Omitted in the lists but frequent in all open dry fields of the northern part of the state.

Panicum lanuginosum, Ell. North Bloomfield, August 2, 1901; open field south of the railroad cut; abundant. In the field it so resembled *P. unciphyllum*, Trin., that I did not recognize the specific difference; yet when pressed and mounted the semblance was decidedly different.

Panicum dichotomum, L. Pomfret, July 4, 1901; wood path to the Wolf Den and vicinity; frequent.

Panicum macrocarpon, Le Conte. Frequent throughout the northern portions of the state.

Panicum microcarpon, Muhl., I have not seen from the state. It is mentioned in the list as "(frequent) — Driggs."

Panicum sphaerocarpon, Ell. North Bloomfield, August 2, 1901; open field south of the railroad cut; abundant.

Eragrostis major, Host, — a form. New Haven, July 21, 1901; plentiful and noticeable.

Eragrostis reptans, Nees. Cromwell, August 19, 1901; pure sand, shores of the Connecticut river; plentiful.

Eragrostis Purshii, Schrader. North Bloomfield, August 2, 1901; open dry field south of the railroad cut.

Glyceria elongata, Trin. Canton, August 14, 1901; mountain woods about Mt. Horr., few plants.

Poa debilis, Torr. Pomfret, July 4, 1901; Wolf Den vicinity; local as far as observed. Listed from but one other place in the state.

Agrostis intermedia, Scribn. South Windsor, September 24, 1901; dry open woodlands along the southern border of the town.

Festuca tenella, Willd., *Asplenium acrostichoides*, Sw., and *Viola ovata*, Nutt. do not appear in the list, but are a part of our general flora.

Sagittaria rigida, Pursh, is abundant in wet sand along the shores of the power house pond at Tariffville.

EAST HARTFORD, CONNECTICUT.

[*Carex Muhlenbergii*, var. *enervis*, reported by Mr. Driggs from Stamford, is a rather frequent form of the species in the southern portions of Connectutic, Rhode Island and Massachusetts — Ed.]

EARLY RECORDS OF LEONTODON IN AMERICA. — In a recent note on the "fall dandelions" of North America (RHODORA, iii. 293) I made the statement that *Leontodon autumnalis* was apparently first recorded as an established plant hereabouts in the 4th edition of Gray's Manual. Mr. T. O. Fuller has kindly called my attention to the fact that the plant was recorded not only in the 1st edition of the Manual (1848) but that by both Bigelow and Pursh it was reported as early as 1814. By what peculiar influence I was led to overlook these definite reports in standard floras and to fix upon the 4th edition of the Manual as the starting point of our records I am now unable to recall. There is, however, no question that the *Apargia autumnalis* of Bigelow and of Pursh is exactly the *Leontodon autumnalis*, L. Bigelow in the 1st edition of Florula Bostoniensis said "This plant, probably an emigrant from Europe, has over-run the vicinity of this place, and grows in almost every kind of soil. It begins flowering in June and July, and is nearly the last plant that yields to the frosts of November," while Pursh in the same year reported the plant "In pastures on roadsides: New England." Since Pursh's explorations in America were carried on between 1799 and 1811 it is probable that the plant had become introduced very early in the last century. Michaux apparently did not mention the plant in 1803 and in Manasseh Cutler's Account of some of the vegetable productions of this region, published in 1785, there is no mention of any plant which seems satisfactorily referable to *Leontodon autumnalis.*— M. L. FERNALD.

LONICERA SEMPERVIRENS ESTABLISHED IN WESTFORD, MASSACHUSETTS. — About the first of October it was reported to me that the Trumpet Honeysuckle was growing wild in the south part of the town of Westford. I have been to see the place, and found in a pasture on the Amos Leighton farm three spots where the plant was growing on the eastern slope of the pasture, among berry bushes, sweet fern, blackberry vines, etc. At the first station the Lonicera was abundant and covered a space 15 feet in diameter. At the second there were only a few roots under a walnut tree. Miss Leighton told me she had only seen one blossom here, and that one was white. The third station had five or six strong plants. All the stations were within a quarter of a mile or less from each other, and all a half a mile from the farm house. As I do not find that this Lonicera has been reported from many towns in Middlesex County, its occurrence at Westford may be a matter of interest. — EMILY F. FLETCHER, Westford, Massachusetts.

THE Handbook of the Trees of New England[1] is a real handbook which will be heartily welcomed by every one who knows or cares to know anything about our trees. Although treating primarily the trees of New England, the book is practically as useful throughout the Northern States and Canada, for it is only an exceptional tree of the North which does not occur within the New England States.

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[1] Handbook of the Trees of New England, with Ranges throughout the United States and Canada, by Lorin L. Dame, S. D. and Henry Brooks. Plates from original Drawings by Elizabeth Gleason Bigelow. Boston, Ginn & Company, 1902. Trade edition (cover with gold lettering), $1.50; school edition (black lettering), $1.25.

The narrow pages and cover, and the very clear drawings of branches showing leaves, flower, fruit, winter buds, and all the parts wished for comparison of different species, immediately commend the book for practical use both at home and in the field where it may easily be carried in the pocket.

Eighty-seven species and varieties are figured in full-page plates, and the text accompanying the plates shows much thought in the planning and a vast amount of detailed work in the organizing of notes. The treatment of each species is divided into seven paragraphs discussing separately the Habitat and Range, Habit, Bark, Winter Buds and Leaves, Inflorescence, Fruit, and Horticultural Value.

From a botanist's point of view the first paragraph of each treatment is perhaps most interesting, though all the sections contain points of value. But in the statements of range in New England of the different species we have the most accurate record of distribution yet available, and one based upon the careful observations, not only of the authors, but of many of the most alert botanists of this area who have coöperated very generally with the authors to perfect this portion of the work.

The descriptive paragraphs are very detailed and helpful, yet, in this as in many other books of the present day, one wishes that the leading or diagnostic characters might be emphasized either by italics or by some other device to distinguish them quickly from the purely generic or more trivial matters in the descriptions. In the present book, however, neither this uniformity of type in the descriptions nor the lack of an analytical key are serious hindrances to the practical use of the book. The excellent plates are a sufficient guide to the species, and these may be hastily glanced through with little inconvenience.

The discussion and illustration of species are followed by a glossary, and that by an index to both scientific and colloquial names so thoroughly provided with cross-references as to delight its most exacting user. The sequence of orders followed, it is almost needless to state, is that of Engler & Prantl, while the nomenclature is intelligently conservative. Altogether the book is one to be cordially recommended to all lovers of forests and out-door life, and the authors and publishers are to be congratulated on producing in such convenient form a book which fills so important and unique a place among New England botanical publications.

UTRICULARIA MINOR IN HOLBROOK, MASSACHUSETTS.

ALICE G. CLARK.

In the spring of 1898 *Utricularia minor* was found in a small area of meadow-land in Holbrook, Massachusetts. Several specimens were collected at that time and some also in 1899, but although careful search has been made the plant has not been found since.

This Utricularia is one of the most delicate of the genus. None of the plants found reached a height of more than 2.5 inches. The thread-like stems lay flat upon the ground and were hidden in the Sphagnum. The flowers, borne upon slender erect scapes, are very small, being about as large as the flower buds of *Drosera intermedia*, with which the Utricularia grew. The latter was in full bloom even in the shade, while the flowers of Drosera were not yet expanded, and the resemblance of the two plants was so strong that in walking along one found considerable difficulty in distinguishing them.

A specimen was recently sent to Mr. Emile F. Williams, whose reply I quote in part: "Utricularia minor has been one of my desiderata for some years. I did not realize it flowered so early. Your date is May 25. It was reported years ago from Tewksbury, but has not been seen by any one of late years and botanists were beginning to be very sceptical about it in this part of the country."

A note as to the growing conditions of the plant might be of assistance to anyone who should wish to look for it next spring. It is described in Gray's Manual as growing in shallow water, but I have found that during the past two years, when water stood an inch or two deep over this spot in the meadow, no trace of Utricularia could be found. During the preceding two years the seasons had been rather dry so that the meadow in this place was covered with a boggy growth of Sphagnum. There were scattered cranberry vines, *Vaccinium macrocarpon*, also *Drosera rotundifolia* and *D. intermedia*, and the green buds of *Pogonia ophioglossoides*.

Several readers of RHODORA would be interested to know if anyone else has collected *Utricularia minor* recently, and if so under what conditions.

NORTH EASTON, MASSACHUSETTS.

Vol. 4. No. 37, including pages 1 to 22, was issued 17 January, 1902.